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31/7068, 47/38, A61P 31/14, 31/18(74) Agents: **LEVY, David, J et al.**; GlaxoSmithKline, Corporate Intellectual Property Department, Five Moore Drive, PO Box 13398, Research Triangle Park, NC 27709 (US).

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60/385,717 4 June 2002 (04.06.2002) US(71) Applicant (for all designated States except US): **GLAXO GROUP LIMITED** [GB/GB]; Glaxo Wellcome House, Berkeley Avenue, Greenford, Middlesex UB6 0NN (GB).

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(75) Inventors/Applicants (for US only): **CURRIE, Robin** [US/US]; c/o GlaxoSmithKline, Five Moore Drive, PO Box 13398, Research Triangle Park, NC 27709 (US). **GOODSON, Gary, Wayne** [US/US]; c/o GlaxoSmithKline, Five Moore Drive, PO Box 13398, Research Triangle Park, NC 27709 (US).(81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.(84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).**Published:**

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: PHARMACEUTICAL COMPOSITIONS COMPRISING ABACAVIR AND LAMIVUDINE

(57) Abstract: A pharmaceutical composition comprising (1S, cis)-4-[2-amino-6-(cyclopropylamino)-9H-purin-9-yl]-2-cyclopentene-1-methanol and (2R, cis)-4-amino-1-(2-hydroxymethyl-1,3-oxathiolan-5-yl)-(1H)-pyrimidin-2-one, in an amount which achieves antiviral efficacy, a process for the preparation of such a composition, and a method of inhibiting human immunodeficiency virus (HIV) which comprises administering such a composition to an HIV infected patient is disclosed.

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WO 03/101467 A1

INTERNATIONAL SEARCH REPORT

International Application No
PCT/US/17347

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 A61K31/7076 A61K31/7068 A61K47/38 A61P31/14 A61P31/18

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 A61K A61P

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, BIOSIS, WPI Data, PAJ, EMBASE, PASCAL, CHEM ABS Data, SCISEARCH

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 00 16779 A (GRAY DOUGLAS FRASER ;GLAXO GROUP LTD (GB); BROWN NATHANIEL A (US);) 30 March 2000 (2000-03-30)	1-5, 7-15, 19-31
Y	the whole document	6,16-18
X	WO 96 30025 A (WELLCOME FOUND ;BARRY DAVID WALTER (US); ST CLAIR MARTHA HEIDER (U) 3 October 1996 (1996-10-03)	1-5, 7-15, 19-31
Y	cited in the application the whole document	6,16-18
X	WO 99 55372 A (GLAXO GROUP LTD ;CURRIE ROBIN (US); JAIN SUNIL (US); WOOD ALLEN WA) 4 November 1999 (1999-11-04)	1-5, 7-15, 19-22, 25-31
	the whole document	

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☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

* Special categories of cited documents:

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O document referring to an oral disclosure, use, exhibition or other means

P document published prior to the international filing date but later than the priority date claimed

T later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

Y document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

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Date of the actual completion of the international search

8 August 2003

Date of mailing of the international search report

21/08/2003

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INTERNATIONAL SEARCH REPORT

International Application No.

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	LAHDENPAA E ET AL: "DIRECT COMPRESSION WITH SILICIFIED AND NON-SILICIFIED MICROCRYSTALLINE CELLULOSE: STUDY OF SOME PROPERTIES OF POWDERS AND TABLETS" STP PHARMA SCIENCES, PARIS, FR, vol. 11, no. 2, March 2001 (2001-03), pages 129-135, XP009006009 ISSN: 1157-1489 page 129 page 133	1-5, 7-15, 19-24
Y	--- OBAE K ET AL: "Morphological effect of microcrystalline cellulose particles on tablet tensile strength." INTERNATIONAL JOURNAL OF PHARMACEUTICS (AMSTERDAM), vol. 182, no. 2, 25 May 1999 (1999-05-25), pages 155-164, XP001154010 ISSN: 0378-5173 page 155 page 164	6,16-18
X	--- VLADYKA R S ET AL: "Evaluation of sphere-forming excipients in high drug loaded theophylline spheres" PROCEEDINGS OF THE CONTROLLED RELEASE SOCIETY 1998 UNITED STATES, no. 25, 1998, pages 948-949, XP009015365 ISSN: 1022-0178 the whole document	23,24
A	--- DUBERG M ET AL: "Studies on direct compression of tablets. XII. The consolidation and bonding properties of some pharmaceutical compounds and their mixtures with Avicel 105" INTERNATIONAL JOURNAL OF PHARMACEUTICAL TECHNOLOGY AND PRODUCT MANUFACTURE 1985 UNITED KINGDOM, vol. 6, no. 2, 1985, pages 17-25, XP009015326 the whole document -----	1-31

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US 03/17347

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☒ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. Claims: 1-22,25-31

Pharmaceutical composition comprising abacavir and lamivudine and a carrier

2. Claims: 23,24

Method for maintaining high drug loading in a pharmaceutical composition

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US 7347

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 0016779	A	30-03-2000	AU 6085099 A CN 1317971 T WO 0016779 A1 EP 1113803 A1 JP 2002526449 T	10-04-2000 17-10-2001 30-03-2000 11-07-2001 20-08-2002
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